

IN THE CLAIMS

Please amend the claims as follows:

Claims 1-32 (Canceled).

Claims 33 (New): A strip to be inserted between two elements to cause acoustic attenuation of noise propagating through at least one of the two elements,
the strip formed from at least one plastic-based damping material, wherein the strip has an equivalent real stiffness per unit length K'_{eq} equal to at least 25 MPa and an equivalent loss factor $\tan\delta_{eq}$ equal to at least 0.25.

Claim 34 (New): The strip as claimed in claim 33, wherein the strip has an equivalent real stiffness per unit length K'_{eq} of between 30 MPa and 270 MPa and an equivalent loss factor $\tan\delta_{eq}$ equal to at least 0.4.

Claim 35 (New): The strip as claimed in claim 33, wherein the strip is formed from a single damping material or from plural damping materials.

Claim 36 (New): The strip as claimed in claim 35, wherein the damping material or materials exhibit adhesion properties with respect to the two elements.

Claim 37 (New): The strip as claimed in claim 33, wherein the strip is formed from at least one damping material and from a nondamping adhesive material, the adhesive material configured to bond the two elements together.

Claim 38 (New): The strip as claimed in claim 37, wherein the adhesive material adheres by two opposed faces to the two elements respectively, the damping material being bonded to at least one of the two elements.

Claim 39 (New): The strip as claimed in claim 37, wherein the adhesive material adheres by one of its faces to the damping material that is bonded to one of the two elements and adheres by its opposite face to the other of the two elements to be joined together.

Claim 40 (New): The strip as claimed in claim 35, wherein the strip comprises plural damping materials placed as a stack of layers one on top of another, each of the materials at ends of the stack being bonded to one of the two elements to be joined together or to the adhesive material.

Claim 41 (New): The strip as claimed in claim 35, wherein the strip comprises plural damping materials placed in juxtaposition one beside another, butted together or otherwise, each of the materials having two opposed surfaces bonded to the two elements to be joined together, respectively.

Claim 42 (New): The strip as claimed in claim 40, wherein the strip comprises plural damping materials placed as a stack and in juxtaposition, at least one or two materials partly constituting the stack being bonded to the two elements to be joined together.

Claim 43 (New): The strip as claimed in claim 37, wherein the adhesive material is placed to be stacked with and/or in juxtaposition with the at least one damping material.

Claim 44 (New): The strip as claimed in claim 37, wherein the at least one damping material, together or with the adhesive material, are separated by an air space.

Claim 45 (New): The strip as claimed in claim 37, wherein the nondamping adhesive material is a polyurethane mastic having a Young's modulus E' of 21 MPa and a loss factor $\tan\delta$ of 0.2.

Claim 46 (New): The strip as claimed in claim 33, wherein the at least one damping material is are chosen from the following plastics: plasticized or unplasticized polyvinyl chloride; thermoplastic elastomers; one-component or two-component polyurethanes possibly modified by an elastomer, such as polyolefins, EPDM (ethylene-propylene-diene) or rubber, especially butyl rubber or nitrile rubber or else styrene-butadiene rubber; polyalkyl acrylate or methacrylate copolymers; and epoxy resins.

Claim 47 (New): The strip as claimed in claim 46, wherein the plastic contains organic or mineral fillers, such as talc, silica, calcium carbonate, kaolin, alumina, molecular sieve, carbon black, graphite and pyrogenic silica, or metal fillers.

Claim 48 (New): The strip as claimed in claim 46, wherein the at least one damping material is a one-component polyurethane that has an NCO percentage content of between 0.5 and 2% and comprises:

at least one polyesterpolyol with a functionality of two (preferably between 80 and 200 g), having an OH index iOH of between 5 and 10, a glass transition temperature T_g of -50°C or below, and a softening point between 50 and 80°C ;

at least one polyesterpolyol with a functionality of two (preferably between 120 g and 220 g), having an index iOH between 50 and 100 and a glass transition temperature T_g of -50°C or below;

at least one isocyanate with a functionality of between 2.1 and 2.7 of the diphenylmethane diisocyanate (MDI) type and having an NCO percentage content of between 11 and 33% (preferably between 180 and 220 g);

at least one catalyst (preferably between 0.5 and 3 g);

optionally, a filler of the molecular sieve type (preferably between 20 and 60 g); and

optionally, at least one filler of the chalk, kaolin, talc, alumina, carbon black, or graphite type (preferably between 5 and 60 g).

Claim 49 (New): The strip formed from the single damping material as claimed in claim 48, wherein the strip has, at 20°C, with a reference cross section of 15 mm in width and 3 mm in thickness, an equivalent real stiffness per unit length of 400 MPa and an equivalent loss factor of 0.3.

Claim 50 (New): The strip as claimed in claim 46, wherein the at least one damping material is a one-component polyurethane that has an NCO percentage content of between 0.5 and 2% and comprises:

at least one polyesterpolyol with a functionality of two (preferably between 350 and 450 g), having an OH number between 20 and 40 and a glass transition temperature T_g of between -40 and -20°C;

at least one polyesterpolyol with a functionality of two, having an OH number between 30 and 90 (preferably between 35 and 250 g), a glass transition temperature T_g between 0 and 30°C, and a softening point between 50 and 70°C;

at least one isocyanate having a functionality between 2.1 and 2.7 of the diphenylmethane diisocyanate (MDI) type and an NCO percentage content of between 11 and 33% (preferably between 150 and 230 g);

at least one catalyst (preferably between 0.5 and 3 g);

optionally, a filler of the molecular sieve type (preferably between 20 and 80 g); and

optionally, at least one filler of the chalk, kaolin, talc, alumina, carbon black, or graphite type (preferably between 5 and 60 g).

Claim 51 (New): The strip formed as a stack of the damping material as claimed in claim 50 and of a nondamping adhesive material of the polyurethane mastic type, wherein the strip has, at 20°C, with a cross section of 15 mm in width and 3 mm in thickness for each of the two materials, an equivalent real stiffness per unit length of 70 MPa and an equivalent loss factor of 0.95.

Claim 52 (New): The strip as claimed in claim 46, wherein the at least one damping material is a polyurethane prepolymer that has an NCO percentage content of between 0.5 and 2%, the material comprising:

at least one polyetherpolyol with a functionality of two, having an index iOH of between 25 and 35, a glass transition temperature T_g below -50°C, and a molecular mass between 3500 and 4500;

at least one polyetherpolyol with a functionality of between 2.3 and 4, having an index iOH between 25 and 800 and a glass transition temperature T_g below -50°C;

at least one polyesterpolyol with a functionality of two, having an index iOH between 20 and 40 and a glass transition temperature T_g between -40 and -20°C;

at least one polyesterpolyol with a functionality of two, having an index iOH between 30 and 90, a glass transition temperature T_g between 0 and 30°C, and a softening point between 50 and 70°C;

at least one isocyanate with a functionality of between 2.1 and 2.7 of the diphenylmethane diisocyanate (MDI) type and an NCO percentage content between 11 and 33%;

at least one catalyst;

optionally, a filler of the molecular sieve type; and

optionally, a filler of the chalk, kaolin, talc, alumina, carbon black, or graphite type.

Claim 53 (New): The strip as claimed in claim 52, wherein the strip comprises, the NCO % content being between 1.8 and 2.2%:

between 180 and 220 g of a polyetherpolyol with a functionality of two, having an index iOH between 25 and 35, a glass transition temperature T_g below -50°C, and a molecular mass between 3500 and 4500;

between 75 and 115 g of an isocyanate of the MDI type having an NCO % content equal to 11.9%;

between 5 and 30 g of carbon black;

between 0.5 and 3 g of catalyst;

between 10 and 30 g of pyrogenic silica;

between 135 and 180 g of a liquid and amorphous polyesterpolyol A with an index iOH between 27 and 34, a molecular mass of 3500, a functionality of two, and a glass transition temperature T_g of -30°C;

between 35 and 85 g of a liquid and amorphous polyesterpolyol B with an index iOH between 27 and 34, a molecular mass of 3500, a functionality of two, and a glass transition temperature T_g of +20°C, respectively;

between 55 and 110 g of an MDI-type isocyanate, with an NCO % content of 11.9%;
and

between 20 and 80 g of molecular sieve.

Claim 54 (New): The strip formed from the single damping material as claimed in claim 52, wherein the strip has, at 20°C, with a reference cross section of 15 mm in width and 3 mm in thickness, an equivalent real stiffness per unit length of 120 MPa and an equivalent loss factor of 0.75.

Claim 55 (New): The strip as claimed in claim 33, wherein the strip is applied to at least one of the elements by a process of extrusion, and/or of encapsulation, and/or of transfer from a molding, and/or of injection molding.

Claim 56 (New): The strip as claimed in claim 33, wherein the strip has a uniform or nonuniform cross section over all or part of its length.

Claim 57 (New): The strip as claimed in claim 33, wherein the strip is joined to two elements of the metal-metal, glass-glass, metal-plastic, plastic-glass or plastic-plastic type.

Claim 58 (New): The strip as claimed in claim 54, wherein the strip is inserted between a glass substrate and a metal element so as to be used for attaching the substrate to the metal element.

Claim 59 (New): The strip as claimed in claim 55, wherein the strip is used for attachment of a glazing to the body of a motor vehicle.

Claim 60 (New): The strip as claimed in claim 59, wherein the glazing includes a laminated glazing assembly comprising at least two glass sheets and a film with acoustic properties.

Claim 61 (New): A method of evaluating acoustic damping properties of a strip configured to be inserted between two elements formed from at least one damping material, comprising:

evaluating equivalent real stiffness per unit length K'_{eq} of the strip and equivalent loss factor $\tan\delta_{eq}$, the strip having acoustic damping properties when the equivalent real stiffness per unit length is at least equal to 25 MPa and the equivalent loss factor is at least 0.25.

Claim 62 (New): The method as claimed in claim 61, wherein the evaluating the equivalent real stiffness per unit length K'_{eq} of the strip and of the equivalent loss factor $\tan\delta_{eq}$ comprises measuring Young's modulus E_i' and loss modulus E_i'' of each constituent material of the strip and calculating using the formulae:

$$[K_{eq}^*]^x = \sum [K_i^*]^x \quad (1)$$

$$K_i^* = E_i^* \times \frac{L_i}{e_i} \quad (2)$$

$$\tan\delta_{eq} = \frac{K_{eq}''}{K_{eq}'} \quad (3)$$

where L_i and e_i are the width and the thickness of the material, respectively.

Claim 63 (New): The method as claimed in claim 62, wherein the Young's modulus E_i' and the loss modulus E_i'' of each constituent material of the strip are measured by a viscoanalyzer.

Claim 64 (New): The method as claimed in claim 63, wherein the viscoanalyzer is used to make direct measurements of the equivalent real stiffness k'_{eq} and the equivalent loss modulus k''_{eq} of a strip specimen with a cross section identical to that of the strip and with a length L and then the following are calculated:

ratio of the measured equivalent real stiffness to the length L to obtain the equivalent real stiffness per unit length K'_{eq} of the strip: $K'_{eq} = k'_{eq}/L$; and

ratio of the measured equivalent loss factor to the measured equivalent real stiffness to obtain the equivalent loss factor $\tan\delta_{eq}$ of the strip: $\frac{k_{eq}''}{k_{eq}'}$.